What is claimed is:

1. An electronic brake system for an electronic motor, the electronic brake system having a manual brake release, comprising:

a field cup adapted to support an electromagnetic coil;

an armature plate coupled to the field cup;

a stationary plate coupled to the armature plate;

a friction disk disposed between the armature plate and the stationary plate;

a compression spring disposed between the field cup and the armature plate, the compression spring being operable to hold the armature plate and the friction disk against the stationary plate; and

a lever and cam assembly coupled to the armature plate and the field cup, the lever and cam assembly being operable to separate the armature plate from the friction disk.

2. The system of claim 1, the lever and cam assembly comprising a lever portion and a cam portion, the lever portion having a first and a second generally L-shaped end portion coupled to one another by a generally arcuate central portion, the lever portion being adapted to partially surround the field cup and coupled to the field cup at the first and second end portions, the cam portion being coupled to the lever portion at a central region of the arcuate central portion and being adapted to make contact with a surface of the field cup.

3. The system of claim 2, the lever portion being connected at a first and a second end to the field cup at a first and a second pivot point, the first and second pivot point being disposed approximately 180-degrees apart from each other, the lever portion being pivotable about the first and second pivot points in response to rotation of the cam portion resulting in tilting of the lever portion to pull the armature plate away from the friction disk and disengage the brake.

4. The system of claim 3, the lever portion of the lever and cam assembly tilting at an angle in the range of about 1 to 10 degrees.

5. The system of claim 4, the lever portion tilting at an angle of about 4 degrees.

6. The system of claim 3, further comprising a handle coupled to the cam portion, the handle being operable to rotate the cam portion.

7. The system of claim 6, the cam portion being adapted to allow the cam portion and handle to rotate between a first position and a second position.

8. The system of claim 4, the cam portion including a first position and a second position, the first position being operable to hold the lever and cam assembly in a disengaged position and the second position of the cam portion being operable to hold the lever and cam assembly in an engaged position.

9. The system of claim 8, the cam portion having a side with an angle incorporated therein, the angle being operable to hold the lever and cam assembly in the engaged position, the angle being in the range of about 1 to 8-degrees.

10. The system of claim 9, the angle being about 3 degrees.

11. An electronic motor system having an electronic brake with a manual brake release, comprising:

a motor portion surrounded by a frame;

a field cup housing an electromagnetic coil and at least one compression spring, the field cup being coupled to the frame located at an opposite drive end of the motor;

an armature plate coupled to the field cup;

a stationary plate coupled to the armature plate;

a friction disk disposed between the armature plate and the stationary plate, the compression spring being operable to hold the armature plate and the friction disk together; and

a manual brake release coupled to a periphery of the field cup, the manual brake release being comprised of a lever and cam assembly coupled to the armature plate and the field cup, the lever and cam assembly being operable to separate the armature plate from the friction disk.

12. The system of claim 11, the lever and cam assembly comprising a lever portion and a cam portion, the lever portion having a first and a second generally L-shaped end portion coupled to one another by a generally arcuate central portion, the lever portion being adapted to partially surround the field cup and coupled to the field cup at the first and second end portions, the cam portion being coupled to the lever portion at a central region of the arcuate central portion and being adapted to make contact with a surface of the field cup.

13. The system of claim 12, the lever portion being connected at a first and a second end to the field cup at a first and a second pivot point, the first and second pivot point being disposed approximately 180-degrees apart from each other, the lever portion being pivotable about the first and second pivot points in response to rotation of the cam portion resulting in tilting of the lever portion to pull the armature plate away from the friction disk and disengage the brake.

14. The system of claim 13, the lever portion of the lever and cam assembly tilting at an angle in the range of about 1 to 10 degrees.

15. The system of claim 14, the lever portion tilting at an angle of about 4 degrees.

16. The system of claim 13, further comprising a handle coupled to the cam portion, the handle being operable to rotate the cam portion.

17. The system of claim 16, the cam portion being adapted to allow the cam portion and handle to rotate between a first position and a second position.

18. The system of claim 14, the cam portion including a first position and a second position, the first position being operable to hold the lever and cam assembly in a disengaged position and the second position of the cam portion being operable to hold the lever and cam assembly in an engaged position.

19. The system of claim 18, the cam portion having a side with an angle incorporated therein, the angle being operable to hold the lever and cam assembly in the engaged position, the angle being in the range of about 1 to 8 degrees.

20. The system of claim 19, the angle being about 3 degrees.

21. A method of fabricating an electronic brake system for an electronic motor, comprising:

providing a field cup for supporting an electromagnetic coil;

coupling an armature plate, friction disk, and stationary plate assembly to the field cup;

providing at least one compression spring disposed between the field cup and armature plate, the at least one compression spring being operable to push the armature plate against the friction disk; and

connecting a lever and cam assembly to the field cup and the armature plate, the lever and cam assembly being operable to pull the armature plate away from the friction disk.

22. The method of claim 21, the lever and cam assembly comprising a lever portion and a cam portion, the lever portion having a first and a second generally L-shaped end portion coupled to one another by a generally arcuate central portion, the lever portion being adapted to partially surround the field cup.

23. The method of claim 21, the step of connecting the lever and cam assembly to the field cup comprising coupling the lever to the field cup at the first and second end portions and coupling the cam portion to the lever portion at a central region of the arcuate central portion such that the cam portion makes contact with a surface of the field cup.

24. The method of claim 23, the first and second pivot point being disposed approximately 180-degrees apart from each other such that the lever portion is pivotable about the first and second pivot points in response to rotation of the cam portion resulting in tilting of the lever portion to pull the armature plate away from the friction disk and disengage the brake.

25. The method of claim 24, further comprising coupling a handle to the cam portion, the handle being operable to rotate the cam portion between a first position and a second position.

26. The method of claim 24, the cam portion including a first position and a second position, the first position being operable to hold the lever and cam assembly in a disengaged position and the second position of the cam portion being operable to hold the lever and cam assembly in an engaged position.

27. A manual brake release system, comprising:

lever means for pulling an armature plate away from a friction disk;

cam means for providing a tilting action in the lever means in response to rotation of the cam means; and

means for rotating the cam means.